

SOP 2.26

TITLE

DESIGNATED MAINTENANCE ITEMS (DMI)

PURPOSE

To define the procedure for the coordination of maintenance activities resulting from payload anomaly investigations.

PARTICIPATION

POM	User	POIC Safety
POD	LIS Rep	CSE
PSE	PAYCOM	PEI

EFFECTIVITY

Increment 2 and subsequent

REFERENCE DOCUMENTATION

ISS Generic Operational Flight Rules, NSTS-12820

B2.2.4-2 In Flight Maintenance (IFM)

B2.5.4-3 Designated Maintenance Item Listing Management

JOIP (MCC-H/POIC), Vol C, Section 11- Maintenance

POH Vol 2:

SOP 1.6 Operations Change Request Processing

SOP 1.7 Payload Anomaly Report Processing

SOP 1.18 Activation of Tiger Team and External Supporting Organizations

SOP 2.11 IFM Procedure Development/Coordination

SOP 2.19 On-Board Anomaly Troubleshooting/Coordination for Station

Systems, Non-Data PLSS, POIF Operations Equipment and Payloads

NSTS/ISS 18798B, "Interpretations of NSTS/ISS Payload Safety Requirements"

GENERAL

Designated Maintenance Item list is a compilation of all the failed or degraded hardware for use in support of real-time and maintenance planning. An ORU or hardware item is designated for repair or replacement when the item is declared failed, degraded or the performance violates the specific criteria listed in the individual system discipline's flight rules section for DMI rules. A consolidated DMI list is maintained by the Operations Support Officer (OSO) at JSC, and a payload specific DMI list is maintained by the PSE

at the POIC. Candidates for DMIs must complete an In-Flight Maintenance (IFM) safety hazard assessment before they can be approved as a DMI. The process flow for IFM is illustrated in the flow chart (Figure 2.26-1) on the next page and described in this procedure.

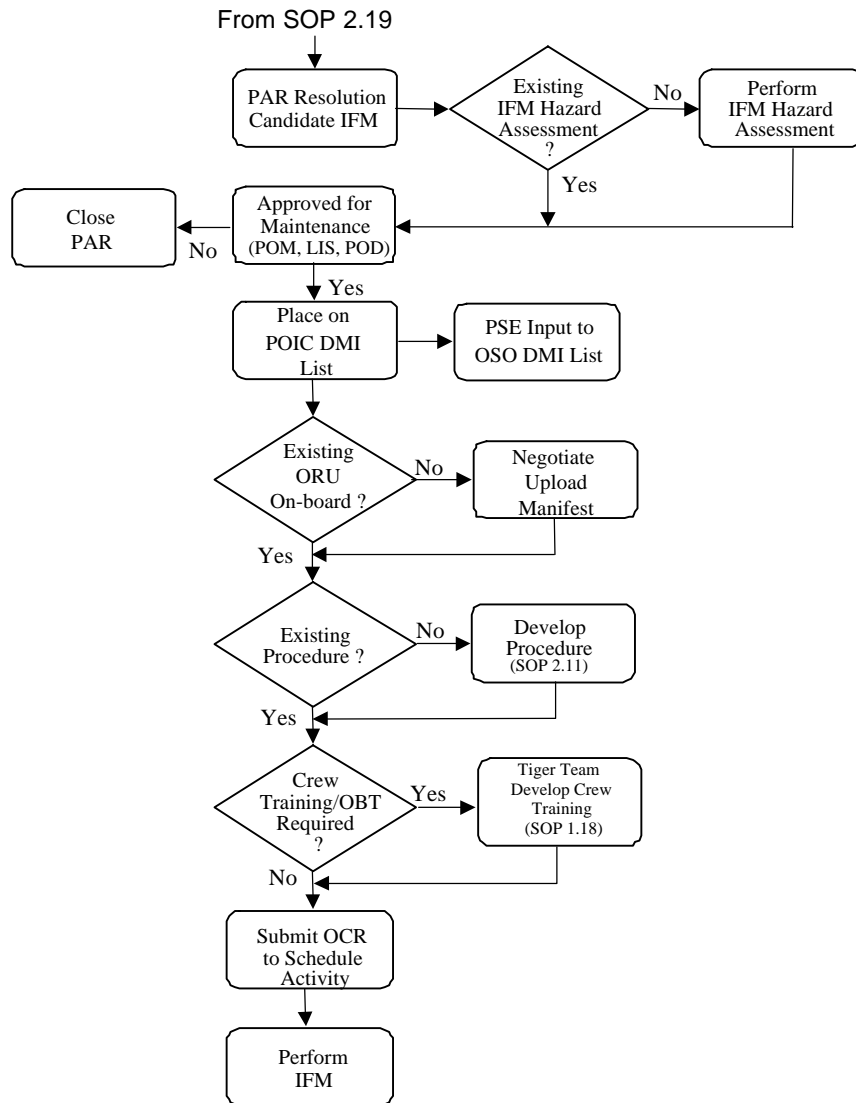


FIGURE 2.26-1 IFM PROCESS FLOW CHART

PROCEDURE

1. PSE coordinates the anomaly investigation of a PAR in accordance with SOP 1.7 and the result may be a recommendation for IFM. Anomaly investigations may require the formation of a Tiger Team or support from External Support Organizations, such as CSE or PEI, in accordance with SOP 1.18.

2. User, with the assistance of PSE, verifies with POIC Safety that the candidate maintenance activity is covered by the maintenance approach described in the existing Safety Data Package for the affected hardware. If the candidate maintenance activity is not covered in the Safety Data Package, User must perform a hazard assessment in accordance with Section 4.5 Interpretation of On-Orbit Maintenance (MA2-00-038) in the NSTS/ISS 18798B, "Interpretations of NSTS/ISS Payload Safety Requirements". User must submit the hazard assessment to POIC Safety. POIC Safety coordinates with the Payload Safety Review Panel (PSRP) support personnel to obtain PSRP disposition.
3. Once an approved hazard assessment exists for the candidate IFM, the candidate maintenance activity is submitted, by User/PSE, to POM, POD and LIS Rep for approval to proceed with IFM preparation tasks. PSE provides any analysis or assistance required during the approval process.
4. Once approved for development, PSE places the now DMI on the POIC DMI list with the accompanying information and e-mails the updated DMI list to RICO for posting on the Real Time Information web site per SOP 1.8.
5. PSE provides the DMI as input to the OSO DMI list via e-mail. (JOIP Section 11 – Maintenance)
6. PSE assists User in the generation of IFM procedures by reviewing and providing comments to these procedures per SOP 2.11, if required.
7. POD assembles a tiger team to assist User in the generation of crew training material per SOP 1.18, if required. Depending upon when the IFM is to be performed, crew training may be performed by PAYCOM on the ground or may be performed on-board through computer based training or procedure review.
8. When preparation for the IFM is completed, User submits an OCR to schedule the IFM per SOP 1.6.
9. When the IFM is scheduled to be performed, PSE will be available on console to assist User and crew with technical advice during the execution of the IFM procedures.